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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/627,745   | 07/28/2003  | Makoto Nakamura      | 023484-0151         | 3816             |
| 22428  | 7590        | 10/04/2004           | EXAMINER            |                  |
| FOLEY AND LARDNER<br>SUITE 500<br>3000 K STREET NW<br>WASHINGTON, DC 20007 |             |                      | CORRIGAN, JAIME W   |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3748                |                  |

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/627,745

Applicant(s)

NAKAMURA ET AL.

Examiner

Jaime W Corrigan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1 and 14 is/are rejected.
- 7) ☒ Claim(s) 2-10 is/are objected to.
- 8) ☒ Claim(s) 11 and 13 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 28 July 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of the Species of Figures 1-8 in the reply filed on 14 July 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 1-10, 12, and 14 are readable thereon and will be examined in their full merit. Claims 11, 13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Objections***

Claims 2, 12, 14 are objected to because of the following informalities:

In claim 2, line 9, page 18, "liked" should be replaced by --linked--.

In claim 3, pages 18-19, "VO" should be spelled out.

In claim 12, line 12, page 21, "liked" should be replaced by --linked--.

In claim 14, line 8, page 22, "proving" should be replaced by --providing--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. (PN 5,357,915).

Regarding claim 1 Yamamoto et al. discloses a control shaft (See Figure 13 (146)) arranged rotatable in accordance with operating conditions of the engine; an alteration mechanism (See Figure 11 (123)) which changes at least an operating angle (See Abstract) of the valve in accordance with rotation of the control shaft; and a drive mechanism (See Figure 13 (154)) which rotates the control shaft, the drive mechanism comprising an electric motor (See Column 9 Lines 9-12) and a reduction (See Figure 10 (141a), (141b), Figure 13 (148), (150), (152), (153)) mechanism, the reduction mechanism having a reduction ratio (See Column 11 Lines 39-52) set to be larger when the valve is under control of small (See Column 9 Lines 35-43) operating angle than when the valve is under control of large operating angle.

Regarding claim 14 Yamamoto et al. discloses a control shaft (See Figure 13 (146)) arranged rotatable in accordance with operating conditions of the engine; means for changing at least an operating angle (See Abstract) of the valve in accordance with rotation of the control shaft; and means (See Figure 13 (154)) for rotating the control

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shaft, the rotating means comprising means for proving torque and means for reducing the torque (See Column 9 Lines 9-12), the reducing means having a reduction ratio (See Column 11 Lines 39-52) set to be larger when the valve is under control of small (See Column 9 Lines 35-43) operating angle than when the valve is under control of large operating angle.

### ***Allowable Subject Matter***

Claim 12 is allowed.

Claims 2-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heer (PN 6,138,622), Heer (PN 5,979,382), Adachi et al. (PN 5,209,194), Kruger (PN 5,031,582), Stidworthy (PN 4,802,376), Heer (PN 6,328,006) disclose similar valve actuators.

Any inquiry concerning this communication from the examiner should be directed to Examiner Jaime Corrigan whose telephone number is (703) 308-2639. The examiner can normally be reached on Monday - Friday from 8:30 a.m. – 6:00 p.m. 2<sup>nd</sup> Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

JC

Jaime Corrigan

*Jaime Corrigan*  
Patent Examiner

September 30, 2004

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*Thomas Denion*  
THOMAS DENION  
SUPERVISORY PATENT EXAMINER  
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